

WHAT IS CLAIMED IS:

1. Device for distributing suction gas for a parallel compressor installation, said installation comprising:
  - at least two refrigeration compressors, each having a body delimiting an inside space;
  - at least one oil level equalization tube providing a communication between oil pans provided in the bodies of the compressors; and
  - at least one suction gas distribution device including an essentially straight distribution tube as well as at least two branch tubes providing communication between the at least one distribution tube at branch portions and the spaces inside the bodies of the compressors, characterized in that the at least two branch tubes have at least one portion forming an angle of between 55° and 65° with the axis of the distribution tube.
2. The distribution device according to Claim 1, characterized in that the at least one distribution tube has a straight portion upstream of a first branch portion, the length of said straight portion being equal to at least five times the outside diameter of the distribution tube.
3. The distribution device according to Claim 2, characterized in that the length of the straight portion of the at least one distribution tube upstream of the first branch portion is between five and seven times the outside diameter of the distribution tube.
4. The distribution device according to Claim 1, characterized in that the at least two branch tubes have a smaller outside diameter than the outside diameter of the distribution tube.
5. The distribution device according to Claim 1, characterized in that the ratio between the outside diameter of the at least two branch tubes and the outside diameter of the at least one distribution tube is between 60 and 85%.
6. The distribution device according to Claim 1, characterized in that the outside diameter of the at least two branch tubes is essentially equal to 1-5/8 inches (1 inch being equal to 2.540 cm), the outside diameter of the at least one distribution tube being essentially equal to 2-5/8 inches in the case that three or four compressors operate in parallel or being essentially equal to 2-1/8 inches in the case that two compressors operate in parallel.
7. The distribution device according to Claim 1, characterized in that the distance between two branches of the at least one distribution tube is at least five times the outside diameter of the distribution tube.

8. The distribution device according to Claim 1, characterized in that the at least two branch tubes have a bent portion downstream of the portion whose axis makes an angle of between 55° and 65° with the axis of the at least one distribution tube, said bent portion having a bending angle of between 115 and 120° and a bending ratio essentially equal to 1.25 times the outside diameter of the at least two branch tubes.

9. The distribution device according to Claim 1, characterized in that the portion of the at least two branch tubes forming an angle of between 55° and 65° with the axis of the at least one distribution tube is adjacent to the at least one distribution tube on at least one of the at least two branch tubes.

10. The distribution device according to Claim 1, characterized in that a last branch tube has a straight portion positioned in the axis of the distribution tube and communicating therewith, upstream of the straight portion whose axis forms an angle of between 55° and 65° with the axis of the at least one distribution tube.

11. The distribution device according to Claim 10, characterized in that the straight portion of the last branch tube positioned in the axis of the at least one distribution tube and communicating therewith has a length equal to at least five times the outside diameter of the at least one distribution tube.

12. The distribution device according to Claim 1, characterized in that at least one of the branch tubes has a collar at its end joined to the at least one distribution tube.